



TECHNICAL SERVICE BULLETIN

10R60/10R80 - Harsh Engagement/Harsh Shift/Delayed Shift With Or Without DTCs

21-2046
30 March
2021

This bulletin supersedes 20-2403. Reason for update: New Part/Procedure For Same Condition

Model:

Ford 2020 Explorer
2020 Police Interceptor Utility
Lincoln 2020 Aviator

Summary

This article supersedes TSB 20-2403 to update the Part List and Service Procedure.

Issue: Some 2020 Explorer/Aviator/Police Interceptor Utility vehicles equipped with a 10R60/10R80 automatic transmission may exhibit a harsh engagement/harsh shift/delayed shift with or without an illuminated malfunction indicator lamp (MIL) or diagnostic trouble codes (DTCs) P0729, P0731, P0732, P0733, P0734, P0735, P0736, P076F, P07D9, P07F6, P07F7, P2700, P2701, P2702, P2703, P2704 and/or P2705 stored in the powertrain control module (PCM). This may be due to sticking valves in the main control valve body. Most vehicles will improve and no longer exhibit the condition after the first 8,000 km (5,000 mi) of driving. To correct the condition, follow the Service Procedure steps to perform the PCM - Transmission Accelerated Main Control Break In routine for the appropriate clutch(s) and/or overhaul main control valve body.

Action: Follow the Service Procedure steps to correct the condition on vehicles that meet all of the following criteria:

- 2020 Explorer/Aviator/Police Interceptor Utility
- 10R60/10R80 automatic transmission
- At least one of the following symptoms:
 - Harsh engagement
 - Harsh shift
 - Delayed shift
 - With or without DTCs P0729, P0731, P0732, P0733, P0734, P0735, P0736, P076F, P07D9, P07F6, P07F7, P2700, P2701, P2702, P2703, P2704 and/or P2705 stored in the PCM

NOTE: Part quantity refers to the number of that service part number required, which may be different than the number of individual pieces. Service part numbers contain 1 piece unless otherwise stated. "As Needed" indicates the part is required but the number may vary or is not a whole number; parts can be billed out as non-whole numbers, including less than 1. "If Needed" indicates the part is not mandatory.

Parts

Part Number	Description	Quantity
W712658-S439	Package Contains 4 Pieces, 2 Pieces Required Bolt Solenoid Retaining Plate	1

HL3Z-7Z490-B	-	Channel Plate	1
L1MZ-7Z490-B	-	Separator Plate	1
HL3Z-7G007-A	Package Contains 4 Pieces, 6 Pieces Required	Solenoid Retaining Clips	2
XT-12-QULV	-	Motorcraft® MERCON® ULV Automatic Transmission Fluid	As Needed
Parts To Inspect And Replace Only If Necessary			
HL3Z-7A191-B	-	Fluid Pan Gasket	If Needed
LP5Z-7A098-A	-	Fluid Filter (10R60)	If Needed
L1MZ-7A098-A	-	Fluid Filter (10R80)	If Needed
HL3Z-7J227-A	-	Auxiliary Pump Tube O-ring	If Needed
7T4Z-7Z302-A	-	Transmission Fluid Filter Seal	If Needed

Warranty Status: Eligible under provisions of New Vehicle Limited Warranty (NVLW)/Emissions Warranty/Service Part Warranty (SPW)/Special Service Part (SSP)/Extended Service Plan (ESP) coverage. Limits/policies/prior approvals are not altered by a TSB. NVLW/Emissions Warranty/SPW/SSP/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

Labor Times

Description	Operation No.	Time
2020 Explorer, Aviator 10R60 Transmission: Retrieve DTCs, Check Odometer And Overhaul The Main Control Valve Body (Do Not Use With Any Other Labor Operations)	212046A	4.3 Hrs.
2020 Explorer, Aviator 10R60 Transmission: Retrieve DTCs, Check Odometer And Perform The Transmission Accelerated Main Control Break-In Routine Repair Complete (Do Not Use With Any Other Labor Operations)	212046B	2.0 Hrs.
2020 Explorer, Aviator 10R60 Transmission: Retrieve DTCs, Check Odometer And Perform The Transmission Accelerated Main Control Break-In Routine Overhaul The Main Control Valve Body (Do Not Use With Any Other Labor Operations)	212046C	5.8 Hrs.
2020 Explorer 10R80 Transmission: Retrieve DTCs, Check Odometer And Overhaul The Main Control Valve Body (Do Not Use With Any Other Labor Operations)	212046D	4.3 Hrs.
2020 Explorer 10R80 Transmission: Retrieve DTCs, Check Odometer And Perform The Transmission Accelerated Main Control Break-In Routine Repair Complete (Do Not Use With Any Other Labor Operations)	212046E	2.0 Hrs.
2020 Explorer 10R80 Transmission: Retrieve DTCs, Check Odometer And Perform The Transmission Accelerated Main Control Break-In Routine Overhaul The Main Control Valve Body (Do Not Use With Any Other Labor Operations)	212046F	5.8 Hrs.

Repair/Claim Coding

Causal Part:	7A100
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Condition Code: 49

Service Procedure

NOTE: Most vehicles will improve and no longer exhibit the condition after the first 8,000 km (5,000 mi) of driving.

1. Does the vehicle have more than 8,000 km (5,000 mi) on the odometer?
 - (1). Yes - overhaul (clean and inspect) the main control valve body. Refer to Workshop Manual (WSM), Section 307-01. Repair is complete.
 - (2). No - proceed to Step 2.
2. Are any transmission related DTCs present?
 - (1). Yes - determine the appropriate clutch(s) to be cycled related to DTCs present. Refer to Workshop Manual (WSM), Section 307-01.
 - (2). No - determine the appropriate clutch(s) to be cycled related to symptoms present. Refer to WSM, Section 307-01.
3. Record and clear all DTCs present before performing the PCM - Transmission Accelerated Main Control Break In routine.



CAUTION: Failure to use a frame engaging lift could damage the vehicle.

4. Prepare vehicle for PCM - Transmission Accelerated Main Control Break In routine by positioning on a frame-engaging lift with wheels off the ground to prevent vehicle movement.
5. Using the latest software level of the appropriate Ford diagnostic scan tool, perform the PCM - Transmission Accelerated Main Control Break In routine 3 times on the appropriate clutch(s) determined to be cycled.
6. Perform the adaptive learning drive cycle. Refer to WSM, Section 307-01.
7. Does the vehicle still exhibit the condition after performing the PCM - Transmission Accelerated Main Control Break In routine and adaptive learning drive cycle?
 - (1). Yes - overhaul (clean and inspect) the main control valve body. Refer to WSM, Section 307-01.
 - (2). No - repair is complete.

NOTE: Advise the customer this vehicle is equipped with an adaptive transmission shift strategy which allows the vehicle's computer to learn the transmission's unique parameters and improve shift quality. When the adaptive strategy is reset, the computer will begin a relearning process. This relearning process may result in firmer than normal upshifts and downshifts for several days.

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NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford or Lincoln dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.